CHAPMAN'S "MALLEE BORES" AND "SORRENTO BORE" OSTRACODA IN THE NATIONAL MUSEUM OF VICTORIA, WITH THE DESCRIPTION OF *MADDOCKSELLA* NEW GENUS

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Abstract: Fifty-four Ostracoda in the collections of the National Museum of Victoria, which were named or described either by Chapman or by Chapman and Crespin in two early papers on Victorian Cainozoic Ostracoda, are reassessed and reassigned as to genus and species. The new pontocypridid genus *Maddocksella*, type species *Maddocksella tumefacta* (Chapman 1914), is described and illustrated from among these taxa.

INTRODUCTION

No Australian palaeontologist can afford to ignore the voluminous writings of Frederick Chapman on the continent's fossil faunas. From his arrival in Victoria during 1902 to his death in 1943 Chapman's output was so prodigious that it became synonymous with the development of Australian palaeontology. He undertook, virtually singlehanded, the description of all groups of fossils found in this country; his bibliography includes over a dozen papers on Ostracoda (McKenzie 1974).

Chapman had a decade of ostracode studies behind him, in the impressive company of men such as Jones and Sherborn, when he arrived in Australia. For this reason his ostracode taxonomy was never questioned. Unfortunately, with the passage of time, Chapman's generic level assignments need revision and many of his species names, especially those referring to taxa described by G. S. Brady, are now known to be incorrect. Most of the errors made by Chapman can be accounted for by the unremitting pace at which he must have worked. Sometimes, sex dimorphs or juveniles and adults of the same species are given different names. When he referred species to taxa described by G. S. Brady, which he did regularly, his only references were Brady's papers, notably Brady's "Challenger" Report (Brady 1880); to my knowledge he never rechecked Brady's type materials, most of which were then deposited at the Hancock Museum, Newcastle-upon-Tyne.

SYSTEMATIC PALAEONTOLOGY

Family Pontocyprididae Muller 1894

Genus **Maddocksella** gen. nov.

Genus A; McKenzie 1964, pp. 448-453.

Australoecia; McKenzie 1969, p. 11.

Australoecia; Maddocks 1969, pp. 49-50.

Australoecia; McKenzie 1974, pp. 158 (Text-fig. 3g), 166.

Australoecia n. subgen.; McKenzie 1979, pp. 90-94.

Etymology: For Dr R. F. Maddocks, who has several papers, including an important monograph, on pontocyprids.

Type Species: *Maddocksella tumefacta* (Chapman 1914) (Fig. 1).

Diagnosis: Argilloeciine pontocyprids characterised by an inflated and robust shell, strong left valve overlap and an adductor rosette of 5 large wedge-shaped scars.

Geological Age: Eocene to Recent.

Discussion: As pointed out by Maddocks (1969, p. 49), the right valve overlap displayed by the type species of *Australoecia* McKenzie (1967, pp. 67-8) is not matched by some different species otherwise referrable to it because these have a marked left valve overlap. Further, the new genus is characterized by an inflated and robust shell whereas the shell in *Australoecia victoriae* McKenzie 1967 is less well calcified and cigar shaped rather than inflated. These three characters sufficiently differentiate between *Maddocksella* and *Australoecia* and also between *Madocksella* and *Argilloecia* Sars, the only other genus which bears any resemblance to the new taxon. The adductor scar pattern of the new genus resembles that of *Australoecia* but is clearly different from that of *Argilloecia*.

The strong left valve overlap which characterises *Maddocksella vis à vis Australoecia* is not fortuitous nor is it confined to only one or a few species. Indeed, all the many Tertiary records belong in *Maddocksella*. On this evidence, *Maddocksella* is the ancestral taxon and *Australoecia* is a radiation from the ancestral stock which is represented in the known living fauna of southern Australia only by the type species *Australoecia victoriae*.

Other Species: These include *Maddocksella mackenziei* (Maddocks 1969). Several as yet undescribed species of *Maddocksella* are known to occur in the Tertiary of Victoria and South Australia (McKenzie 1974, 1979). Genus A sp. A of McKenzie (1964) represents yet another species which lives in Oyster Harbour, near Albany, Western Australia. Other living species are known from Sahul Shelf, off northwestern Australia (McKenzie 1974, p. 166).

Note that McKenzie (1979, p. 90) refers the deep sea taxon *Australoecia abyssophila* Maddocks 1969 to the genus *Abyssocypris* van den Bold 1974.

Ecology: *Maddocksella* appears to be restricted to coastal waters, including protected bays and estuarine harbours where it is usually found living in sublittoral, muddy silts and fine sand facies. Since empty shells are often washed onto beaches, it is unlikely that the preferred depth for this genus is much greater than 15-30 m. It

TABLE 1
GENERIC AND SPECIFIC REASSIGNMENTS OF OSTRACODA DESCRIBED IN CHAPMAN'S (1914) "MALLEE BORES" PAPER

	Chapman's Name	Reassignment	NMV Reg No
1.	*Cytherella pulchra* G. S. Brady	= *Cytherella* [non *pulchra*]	P12539
2.	*Cytherella polita* G. S. Brady	= *Cytherella* [non *polita*]	P12538
3.	*Cytherella muricultus* Chapman	= *Cytherelloidea* Alexander 1929	P12536-7
4.	*Cytherella lata* G. S. Brady	= *Cytherella* [non *lata*]	P12535
5.	*Cytherella subtruncata* Chapman	= no change	P12541
6.	*Cytherella punctata* G. S. Brady	= *Platella* Coryell & Fields 1937 [non *punctata*]	P12540
7.	*Cytherura ouyenensis* Chapman	= *Loxocythere* Hornibrook 1952	P12529
8.	*Cytheropteron postumbonatum* Chapman	= *Bythoceratina* Hornibrook 1952	P12532
9.	*Cytheropteron reticosum* Chapman	= no change	P12534
10.	*Cytheropteron batesfordiense* Chapman	= n. gen.	P12531
11.	*Cytheropteron batesfordiense aculeata* Chapman	= n. gen. [same sp. as 10]	P12530
12.	*Cytheropteron praeantarcticum* Chapman	= *Oculocytheropteron* Bate 1972	P12533
13.	*Cytheropteron rostratum* Chapman	= non *Cytheropteron*	P12553
14.	*Cythere rastromarginata* G. S. Brady	= *Cletocythereis* Swain 1963	P12518
15.	*Cythere scabrocuneata* G. S. Brady	= *Trachyleberis* Brady 1898 [male, non *scabrocuneata*]	P12520
16.	*Cythere scintillulata* G. S. Brady	= *Parakrithe* van den Bold 1946 [non *scintillulata*]	P12519
17.	*Cythere scutigera* G. S. Brady	= *Trachyleberis* [non *scutigera*]	P12521
18.	*Cythere wyvillethomsoni* G. S. Brady	= n. gen. [non *wyvillethomsoni*]	P12522
19.	*Krithe eggeri* Chapman	= *Parakrithe* [same sp. as 16]	P12523
20.	*Loxoconcha australis* G. S. Brady	= no change	P12524
21.	*Xestoleberis curta* G. S. Brady	= *Xestoleberis* [non *curta*]	P12525
22.	*Xestoleberis marginata* G. S. Brady	= *Xestoleberis* [non *marginata*]	P12526
23.	*Xestoleberis variegata* G. S. Brady	= [slide empty]	P12527
24.	*Cytherura capillifera* Chapman	= n. gen.	P12528
25.	*Cythere dictyon* G. S. Brady	= *Bradleya* Hornibrook 1952 [non *dictyon*]	P12507
26.	*Cythere flexicostata* Chapman	= n. gen.	P12508
27.	*Cythere lactea* G. S. Brady	= *Tenedocythere* Sissingh 1972 [non *lactea*?]	P12509
28.	*Cythere lepralioides* G. S. Brady	= *Cytheralison* Hornibrook 1952 [non *lepralioides*] [juv.]	P12510
29.	*Cythere lubbockiana* G. S. Brady	= *?Keijia* Tecter 1975 [non *lubbockiana*]	P12511
30.	*Cythere militaris* G. S. Brady	= *Ponticocythereis* McKenzie 1967 [aff. *clavigera* G. S. B.]	P12512
31.	*Cythere normani* G. S. Brady	= *Quasibradleya* Benson 1972 [non *normani*]	P12513
32.	*Cythere obtusalata* G. S. Brady	= *Loxoconcha* Sars 1866 [non *obtusalata*]	P12514
33.	*Cythere ovalis* G. S. Brady	= *Cytheralison* [non *ovalis*] [adult male of 28]	P12515
34.	*Cythere parallelogramma* G. S. Brady	= n. gen. [same sp. as 26] [non *parallelogramma*]	P12516
35.	*Cythere postdeclivis* Chapman	= *Cytheralison* [adult male, same sp. as 28, 33]	P12517
36.	*Macrocypris decora* G. S. Brady	= *Tasmanocypris* McKenzie 1979 [non *decora*]	P12496
37.	*Macrocypris tumida* G. S. Brady	= *Maddocksella* [non *tumida*]	P12497
38.	*Bythocypris tumefacta* Chapman	= *Maddocksella* [same sp. as 37]	P12498
39.	*Bythocypris tumefacta* Chapman	= *Maddocksella* [same sp. as 37, 38]	P12499
40.	*Bairdia amygdaloides* G. S. Brady	= *Neonesidea* Maddocks 1969 [non *amygdaloides*]	P12500
41.	*Bairdia australis* Chapman	= *Neonesidea*	P12501
42.	*Cythere canaliculata* Reuss	= *Callistocythere* Ruggieri 1953 [non *canaliculata*]	P12502
43.	*Cythere crispata* G. S. Brady	= pectocytherid n. gen. [non *crispata*]	P12503
44.	*Cythere dasyderma* G. S. Brady	= *Cytheralison* [female, same sp. as 28, 33, 35]	P12504
45.	*Cythere demissa* G. S Brady	= *Keijia* [non *demissa*]	P12505
46.	*Cythere dictyon* G. S. Brady	= *Trachyleberis* [non *dictyon*] [female, same sp. as 15]	P12506

Notes: 1. For description of *Maddocksella* see text.
2. juv. = juvenile.

TABLE 2
GENERIC AND SPECIFIC REASSIGNMENTS OF OSTRACODA DESCRIBED IN CHAPMAN, CRESPIN AND KEBLE (1928)—THE "SORRENTO BORE" PAPER.

	Chapman's and Crespin's Name	Reassignment	NMV Reg No
1.	*Cythere sorrentae* Chapman & Crespin	= *Tenedocythere* [?] [juv.]	P14431
2.	*Cythere caudispinosa* Chapman & Crespin	= *Oertliella* Pokorny 1964 [?]	P14432
3.	*Cythere baragwanathi* Chapman & Crespin	= *Osticythere* Hartman 1980	P14433
4.	*Bythocythere keblei* Chapman & Crespin	= n. gen. [A-1 juv.]	P14434
5.	*Cytherura praemucronata* Chapman & Crespin	= *Pokornyella* Oertli 1956 s.l.	P14435
6.	*Cytherella sulcosa* Chapman & Crespin	= no change	P14436
7.	*Cytherella intermedia* Chapman & Crespin	= *Cytherelloidea*	P14437
8.	*Cytherella araneosa* Chapman & Crespin	= same sp. as 6	P14438

Note: juv. = juvenile.

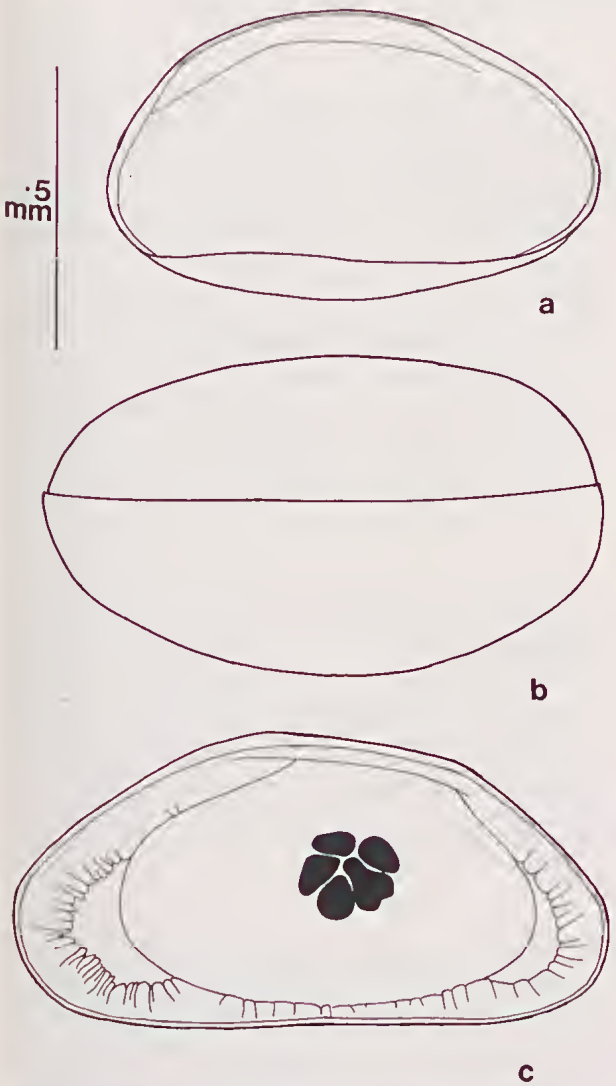

Fig. 1—*Maddocksella tumefacta* (Chapman 1914).
a, A-1 juvenile left valve, internal view (outline) NMV 12499 lectoparatype; b, adult carapace, external view NMV 12498 lectotype; c, adult right valve, internal view NMV 12497 lectoparatype. Note: normal pore canals not illustrated.

is thus a useful shallow water marine and inshore index in the Cainozoic of Australia.

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